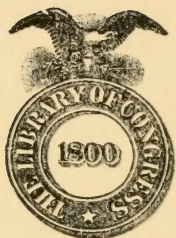


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THE HOME GARDEN



A GARDEN BORDER OF ANNUALS

"Can there be hearts and souls from which such a prospect brings no response? . . . I doubt it."

THE HOME GARDEN

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CONTENTS

CHAPTER	PAGE
I. THE HOME GARDEN.	9
A Plea for "A Garden for Every Home"—How Home Gardening Has Grown—The Spirit of the Garden	
II. THE ELEMENTS OF A GARDEN.	15
Privacy—Fitness—Variety—Color—Vistas—The Lawn—Shade—Water and Birds—The Materials of Gardening—The Successful Vegetable Garden	
III. THE PLEASURES AND PROFITS OF A GARDEN	20
The Joy of Achievement—The Incident of Success—The Garden Born Virtues—Health for the Whole Family—Material Benefits—Quality Products—Economy	
IV. THE ACCESSORIES OF A GARDEN	26
Essential Tools—The Helpful Wheel Hoe—Implements for Irrigating and Spraying—Spray Materials—Manures and Fertilizers—Hotbeds and Coldframes	
V. SOME COMMON GARDEN FALLACIES	33
The Erroneous Hilling Theory—Right and Wrong in Mulching—Why Not to Sprinkle—Some Pruning Errors—Burning the Garden's Bounty—Native Plants and the Line of Least Resistance	
VI. PRACTICAL DETAILS OF GARDEN MAKING	41
Planning the Flower Garden—And the Vegetable Plot—Principles of Soil Preparation—Seed Growing and Transplanting—Garden Care and Cultivation—Harvesting Hints	
A GARDEN PLAN	48
ALL YEAR HELP FOR HOME GARDEN MAKERS.	48

THE ILLUSTRATIONS

A garden border of Annuals (In color) . . .	<i>Frontispiece</i>
Privacy is the dominating feature of the home and should be of the home garden, too (In color) . . .	PAGE 11
The successful use of garden materials	13
The real garden is an integral part of its environment— both its home and its surroundings (In color) . . .	14
“Think of the bountiful goodness of an occupation that creates both a ravenous appetite and the wherewithal to satisfy it.” (In color).	21
Garden joys are for youth and old age alike	22
On the basis of real estate values alone every garden detail adds to the worth of the home (In color) . . .	29
Two invaluable garden tools	30
The lawn is the setting for the home and for its garden (In color)	35
It isn't the amount of space that the garden covers that counts, but rather the way that space is used . . .	38
One of the biggest factors in garden care is a constant, interested enthusiasm (In color).	44
A planting plan for a 20 x 40 foot vegetable garden. . .	48

CHAPTER ONE

THE HOME GARDEN

"Show me a well-ordered garden and I will show you a genial home."
—George H. Ellwanger.



THE first home in the history of all creation was a garden; and ever since then the two have been inseparably associated and interdependent. Perhaps the highest development of the combination was the achievement of the ancient Roman, when he so constructed his house that every room opened into a central court of which the roof was blue sky, and in which flowers and fountains, birds and butterflies supplied an unceasing pageantry of perfume, melody and beauty.

To-day we enjoy the same close association of home and garden life, but, except in the patio house of the Southwest, which is a modern form of the Roman's abode, we have achieved the end by a different route. Instead of building our houses around gardens, we build gardens about our houses; instead of bringing the spirit of the garden into our homes, we carry our home life out into the garden. And our lives are the richer and the better therefor.

Yet far too few of us have trod this broad and easy road to happiness. America is a land of homes; it should also be a land of home gardens. Indeed, it shall be. For national democracy and independence mean also individuality. The American wants and works for his own home on his own bit of land and these factors represent the fundamentals of a national love for gardening and its nation-wide practice.

This is fortunate indeed, for as Dr. Wilhelm Miller says, "there are certain fundamental needs which people always have felt for flowers, and always must gratify. The heart

cries out for these things, and the cry cannot be stifled." Going farther he identifies these needs as follows—and though he is speaking to the people of the Illinois prairies, the same statements apply, with the change of an occasional local allusion, to all parts of the country and all sorts and conditions of mankind: "(1) Every mother wants to grow the famous old flowers that everybody has always known and loved. (2) Every woman that ever lived wants cut flowers in her house. (3) Every family has some member that loves birds, and wishes to bring their song, flight, and color nearer to the house. (4) All parents want their children to learn independence, and to love the country and wish to stay there. (5) Every civilized being needs a chance to get back to nature—some playground, picnic spot, or bit of wildness. (6) Every dweller on the prairie knows that about half the year is leafless, and dumbly feels the need of winter comfort and cheer [which a window-box indoors and bright-colored shrubs outdoors can supply]. (7) Every farmer has at least a rudimentary admiration for old trees and other things that grow more precious every year. (8) Every citizen of Illinois is proud of his state, takes an interest in his state flower, and is glad of every chance to show an honest state pride based upon real achievements."

Some, alas, think of gardening for the multitude as a thing of the past. They see in us a rapidly developing race of urbanites with no higher nor simpler tastes than can be supplied by the city. But facts tell a different story, the story of a trend toward greater interest in individual gardening than ever before existed. Let the history of American garden literature bear witness. Between 1799, when the first book of this kind was published, and 1914, just before the Great War laid its restraining hand upon all peaceful industries and interests, there were published about one thousand works on garden subjects. But more than half of these appeared during the last twenty-five years of that period, and fully a quarter of the total number since 1900, the largest number for any one year having been 35 in 1914. Moreover, the prevailing type of book has undergone a distinct tran-



Privacy is the dominating feature of the home and should be of the home garden, too

sition from the original calendar or formal record style, through the development of the text book and manual, to the personal, subjective or "imaginative" work in which the author expresses both his own and his garden's personalities—or in many cases *hers*, for our modern garden authors are largely women.

Thus we have passed beyond the period when gardening was either a pure science or a cold, impersonal business; we are entering upon a golden age in which gardening is to be nothing less than an essential part of our lives, a vital factor in our daily existence through which we will gain new pleasure and profit and a new outlook upon life.

For the spirit of gardening is one of joyful accomplishment, of coöperation and sympathy with Nature; it carries with it an everchanging round of experiences, a constant insight into the mysteries and wonders of the life that surrounds us; the opportunity to work for definite, worthy aims and to see their gradual, consistent achievement; the ability to give joy to those that are sad, to feed the souls of those that hunger for beauty, to accept the stewardship of a little corner of God's earth and make it more fruitful and more beautiful than it would otherwise have been.

Can there be hearts and souls from which such a prospect brings no response? Have we, indeed, so far lost our natural instincts and desires that we can get pleasure only from the artificial offerings of city life and the unproductive existence of ease and idleness? I doubt it. I deny it. And I herewith cast down a gauntlet in defense of my belief. Let those who doubt my contention read this book through and learn in slight measure of what a garden means and what it offers and what it asks; let them read and digest and make one fair test with an actual garden—no matter how small—for even one short season (although the real reward of the gardener is an accumulative one); whereupon I will leave it to them to decide whether or not my claims are founded upon fact, and whether they can, with entire happiness, forego the cares and joys of a home garden in the years that are to come.



A well planned arrangement of annual flowers



A well located, well laid out, and well cared for kitchen garden

THE SUCCESSFUL USE OF GARDEN MATERIALS



The real garden is an integral part of its environment—both its home and its surroundings

CHAPTER TWO

THE ELEMENTS OF THE GARDEN

"Thought, taste, and labor are all needed to make a garden that is beautiful."

—Walter P. Wright.



HAVE said that an essential feature of the garden is individuality; that its hope of success rests in its ability to express the personality of its maker and to satisfy the needs of his or her soul. Consequently it would be as presumptuous and disastrous to tell garden lovers what their gardens should be, as to say what sort of clothes they should wear, or what kind of furniture they should have in their homes.

In each case, however, it is possible and entirely legitimate to analyze, arrange and discuss the constituent features, methods and materials of any successful garden, any becoming, stylish gown, or any tasteful, comfortable interior.

The dominating feature of the home is *privacy*; the same must be true of any garden that is to be an integral part of a home—as every garden should. In this respect more, perhaps, than in any other has the average American garden suffered in comparison with that of England or the continent. Possibly the necessary seclusion has not appealed to the democratic American mind; more probably there has been too generally a mistaken idea of “showing off” the garden treasures to the passerby, a tendency to display, of which the questionable taste was long overlooked.

Now we are enclosing our gardens within a hedge, a belt of thickly planted trees and shrubs, a vine-covered fence, or, best of all, stone or brick walls. The latter are so enduring, their beauty so enriches with age, they furnish such admirable

support for the training of vines, and even dwarf fruit trees, that they are by far to be preferred wherever means and future plans permit. Whatever the means, however, see to it that the garden is private, a veritable outdoor living room, where restraint and the thought of the world outside are no more experienced than within the dwelling itself. And then see to it that the garden *is* lived in.

Fitness. There are various kinds of gardens, but only one that is right for any particular place. The garden must fit in with its environment, both the external phase which involves the locality, nature, climatic conditions and natural flora of its surroundings, and the internal phase represented by the house of which it is a part. The Italian villa style of house, for example, if set in a wooded country, may legitimately be tied to its environment by an "old-fashioned" garden that gradually merges into a wild or naturalistic type as it reaches the woodland background. But it would be impossible to justify the combination of a New England cottage or a typical bungalow with a "formal" garden of box edgings, marble seats, statues, etc. These are extreme cases, but insignificant violations of the laws of appropriateness often strike louder discords than fundamental mistakes of far greater extent.

Variety. The small garden should represent but one style, but this does not mean that it shall be monotonous. There can—and should—be variety in texture and color, in height and mass, in outlook and in point of view; but, again, these should be as modulations in tone and shading rather than as radical differences in technique. Variety is not gained by spotting a lawn with freak specimen trees and shrubs, gaudy, geometrical beds and a heterogeneous mixture of garden "ornaments," notwithstanding the erstwhile popularity of just such abominations. But a single specimen of redbarked dogwood in a mass of evergreens, a graceful grouping of phlox at intervals along a border, a stately "Spanish bayonet" rising like an exclamation point from behind a clump of low herbage—such simple, harmonious devices attract, relieve and charm the eye at a single glance. Let there be

one dominant keynote, with the variations occurring as overtones and developments of the basic chord.

Color. Nothing is more essential in the garden than color, yet nothing is more often the cause of failure than its misuse. There is such a delicacy in flower shadings, the gradations are so slight and yet the ultimate variations so distinct, that successful management calls for a touch and a mind of the utmost accuracy and susceptibility where color tones are involved. There is, of course, a confusing number of controlling factors. The season of bloom, the nature and color of the background, the length of the blooming period, all influence the methods by which the all-important harmony may be secured. If for no other reason, the prospective gardener should make a study of varieties, solely that he may avoid color discord in the beds and borders.

Vistas are the ties that bind the house and garden to the world outside. Like first impressions they may make or mar future relationships. They may result either from the clearing away of certain trees and plants that previously obstructed a desirable view, or from the framing in of a particular bit of landscape by the growing and training of trees or vines in definite positions. Here again personal taste is a determining factor since while one person may prefer a glimpse of a cornfield framed by honeysuckle on a trellis, another may choose instead the view beneath the gnarled limb of an old apple tree, down a quaint village street. And then, of course, there is the converse of vista making, that is, the blotting out of unsightly objects and views. Many a hastily built trellis and temporary morning glory vine have kept an ugly building, flamboyant billboard, squalid barnyard or other eyesore from obtruding itself as the single unpleasant feature of an otherwise charming garden. Don't despise the coarse textured quick-growing species; they may sometime do as much for you.

A Lawn, well made and carefully groomed, is to the garden what a polished mahogany surface or a fine damask cloth is to a beautifully laid dining table. Without it, the flowers, shrubbery and trees, be they ever so perfect and thrifty,

lose much of their beauty and effect. Needless to say, the lawn should be smooth, carefully graded, thickly seeded, regularly cut and adequately fed and watered. No less important, but more often overlooked or not appreciated, is the fact that it should be an open, central space bordered by flowers, rather than a surface indiscriminately sprinkled with beds and bushes.

Shade. Because most plants demand sunshine, some folk think gardens must be exposed in glaring nakedness to the sun. Here once more think of the garden as part of the home, as a source of comfort for the family, and the absolute need of shade is at once apparent. Of course, it can be overdone, and the garden made damp and gloomy, the lawn thin and patchy and the flowers spindly. In the small garden it may be wiser to rely on pergolas, summer houses and vine-covered arbors, than to plant trees with a lavish hand. The greater danger, however, is lack of restraint in taking out existing trees. An old, decrepit apple tree can often be renovated and made beautiful, a dense thicket can be judiciously thinned into an inviting bower; but a tree once cut down is lost. Think at least twice before using the axe, and before planting a tree.

Water can make all the difference between a sleeping garden and one joyously awake. Though it be only the soft music of a tiny fountain, or the ripple of a diminutive stream along its pebbly course, it reaches the ear and charms the eye as no other feature can. *Birds*, too, supply the breath of life in the garden, and in addition a touch of Nature and wildness that we cannot duplicate with all our arts. Also they defend us from many an insect pest, while filling the garden air with their friendly song and chatter.

The garden artist is more fortunate than his brother of the brush, for he can work in more than one medium at a time. Trees may perhaps be beyond his reach, but shrubs are always available and convenient to work with, both dignified evergreens and brightly decked, flowering, deciduous sorts. Next come herbaceous perennials, many to be started from seeds and carefully tended to thrifty maturity, others to be started from plants, or clumps, or bulbs. And finally, there

are annuals—bedding plants as they are often called—perhaps the most flexible and adaptable of all. For they can be grown quickly and easily; indoors for early results, or outdoors for a later season's bloom; transplanted in some cases, or started where they are wanted; massed and arranged for definite effects, or planted in rows as a source of cut flowers. Truly the annual is the plant of plants for the beginner as well as the expert craftsman; for both the restricted limits of the backyard and the broad expanses of the elaborate garden.

The elements of a good site for a vegetable garden are: a slight southern slope sheltered from north winds by buildings, trees or a hedge; preferably an elongated rectangle so that crops can be planted in long rows and easily cared for; conveniently situated with reference to the house, and the other divisions of the garden and grounds; and large enough to supply the requisite crops and the desired amount of exercise and labor in their care, but *not* so large as to be a burden or to result in only partial cultivation. Better a plot twenty feet square kept in the best of condition than a quarter acre weedy, unkempt, half-neglected.

The really successful vegetable garden is *sightly* in its systematic arrangement and luxurious vigor; every square inch is busy contributing to some crop every day of the season. It is *productive*, not necessarily in record-breaking yields of one or two crops, but as a continual source of high quality products for several months. It is *economical*. The man who raises a bushel of potatoes at a total expense of five dollars or more, isn't gardening; he is merely playing at gardening. Perhaps he has gotten his money's worth in tan or muscle or satisfaction, but his garden isn't an example for the multitude. The garden that pays is the garden that provides something better than you could otherwise get, at a lower cost than you would otherwise have to pay. And that is the kind of garden we are considering in this book.

CHAPTER THREE

THE PLEASURES AND PROFITS OF A GARDEN

*"Pleasures which nowhere else were to be found
And all Elysium in a plot of ground."*

—Dryden.



IN THE glossary of true garden lovers pleasure and profit are, or should be, synonymous. For how can pleasures that are helpful, unselfish and constructive be other than profitable; or profits that are legitimate, well deserved and destined to be shared with others, anything but pleasurable? The riches or rewards of garden making are all of these, and, best of all, they are measurable, to a limited extent, in terms of each of our physical, our mental, our moral, and our financial needs.

Mrs. Margaret Deland chooses to summarize the joy of the garden in just one word: "*Work*," and thinks with sincere pity of the woman who through innate lack of imagination or the restrictions of wealth and "position," has to employ a professional gardener. " . . . A poor creature like this, who has paid somebody to take joy out of her hands, actually *paid* him, to dig and perspire, to . . . mourn, to rejoice for her—such a person can never have the faintest idea of what a garden means. She might as reasonably suppose that she had enjoyed a sunset because she had hired someone to look at it."

In other words, garden joy is the joy of achievement, of the production of color and perfume and bountiful crops, of the solicitous fostering of tiny seeds and tender seedlings, the dexterous, artistic training of vine and branch, the subduing of weed, the conquering of insect enemy, the crea-



“Think of the beautiful goodness of an occupation that creates both a ravenous appetite and the wherewithal to satisfy it.”

tion and maintenance and contemplation of beauty and the smiling face of Nature at her kindest. There are many who have been content with less!

And yet success—again quoting Mrs. Deland—"Success is only an incident of gardening. Any one who believes it to be an end may find, when he reaches the end, that he has passed happiness on the way—she is so often out of sight, there on her knees among the flowers! But of course, sometimes, incidentally, the happy gardener *is* successful; things do grow; and when they do, that is just so much to the good. . . .

"Mrs. Julia Ward Howe once said that when it came to art, 'inspiration was perspiration'; and surely one can say the same of gardening: happiness is—perspiration." Which, interpreted, is to say that only he who makes a garden and works in it, really understands and wins its real reward. To take the place of the elusive success, Mrs. Deland thinks of the four virtues which in her opinion every garden creates or augments in its gardener. These are, first, Hope, that buries the ashes of past failure beneath the fragrant petals of future plans and expectations; second, Trust in our fellow man, that gives us commendable confidence in the catalogue descriptions and possibilities of plants even when our own attempts fail to more



Garden joys are for youth and old age alike

than suggest the expected ideal; third, Humility, that arises from the contemplation of finer gardens, and the constant discovery of things that we "did not know," or "forgot to do." (Indeed gardening awakens a most wholesome respect both for Nature and her wisdom, and for our superior brethren, in the persons of more successful gardeners.) And, fourth, Patience, which in March keeps us from attacking the sodden soil too soon, in April prevents us, *sometimes*, from digging up the newly planted seeds to see if they have sprouted, in August holds our appetite for sweet corn respectably in check, and, all through the winter, soothes our uneasy soul as it chafes against the bonds of snow and frozen ground.

But after all, apart from these more or less sentimental benefits, there are the material rewards that do accrue, however limited the garden's extent.

There is health, for instance—a strength of back and arm, a toughness of hand and sinew, a clarity of eye and brain, a sharpness of appetite, a thorough fitness for work and for play—that follows the consistent use of the hoe, rake, spade, and cultivator. The back will stiffen at first after planting the hotbed or weeding a row of onions, there will be blisters on the inexperienced palms, and sunburn on the collarless neck, but these soon pass, giving way to a new lease of virility and power, as though some unseen hand had gripped the clutch of the physical existence and thrown it into high speed. And just think, you who are about to plant vegetables, of the bountiful goodness of an occupation that creates both a ravenous appetite *and* the wherewithal to satisfy it!

This boon of health is not alone for you, chief steward of the garden. Your lady wife (or your good man if *you* are lady wife) and the kiddies too, have in the garden a place to work, play and be happy withal. Schools all over the country are being equipped to teach nature study; but there is a complete laboratory equipped with material for a full curriculum at your door. Where is a better place for the youngsters to delve understandingly, reverently, healthfully into the mysteries, beauties and wonder of life and creation?

Out in Lincoln, Nebraska, the school children have their gardens like those in many another city; but they have gone farther: They have also established conjointly a market in a vacant lot at the corner of two residential streets, whence for three hours each Saturday morning they sell the products of their gardens to housewives of the neighborhood. Thus they are learning the practical applications of marketing principles as well as those of gardening and the value of money and of productive labor in terms of well-earned profits.

There is pleasure if not profit also in the knowledge that a garden is an attractive sight for the passerby and that the surplus blossoms and fruits for which you have no use can bring joy and delight to others less fortunate than yourself.

Of worldly, material profits, we may recognize first, the increased real estate value that follows the beautification of our grounds. Few people live in constant expectation of selling or renting their homes; but should this become necessary, a garden, a well-cared for expanse of greensward, a setting of shrubbery and a drapery of vines, each adds its quota to the total augmented value of the property.

Flowers for indoor decoration for the picking, represent an expenditure which in some homes reaches surprising proportions. Ten cents' worth of seed and their share of the general garden management may yield blossoms that would cost a dollar or more at the florist's; this is only one expression of the proportionate returns in gardening.

Fresh, home-raised vegetables and fruits are a boon in more ways than one. They render a family independent of the peddler and the grocery; they represent higher quality and flavor, greater delicacy and tenderness, and the important feature of greater cleanliness and purity. During this summer of 1916, for instance, when uncooked fruits and vegetables shared the general suspicion directed at all possible carriers of the poliomyelitis organism, think of the peace of mind that could arise from the knowledge that every vegetable and fruit used in the household had been grown in the home garden untouched by the hands of any outside the family!

The cost and economy of the garden I have already touched upon. Of course many a plot is simply a playground, recognized and maintained as such with no restrictions imposed as to its cost. But this is neither the commonest condition nor a necessary one. Where labor does not have to be hired, a small, well-managed garden can more than pay for itself during the four summer months. If the family is large and there are enough other duties about the place to justify the employment of a man to look after the routine and heaviest work, a garden of an acre or so cannot only supply the table all summer, but also provide sufficient vegetables and fruit for storing and preserving wherewith to reduce the winter expenses for these commodities to an infinitesimal minimum. Canned goods have become almost an institution in American domestic affairs. The housewife has double cause for pride who can display shelves full of beans, corn, beets, tomatoes, etc., home raised, and stored in their glass containers by none other than herself.

The garden, then, pays its way, and "then some." It adds to the sum total of human satisfaction and happiness; and that is a big, worth-while accomplishment. Perhaps it has always been so even though we have only recently begun to realize it. At any rate, Sir Francis Bacon some odd hundreds of years ago wrote: "God Almighty first planted a garden: and indeed it is the purest of human pleasures." And in this year of grace a man expressed the same far-sighted thought when, after meeting a company of gardeners and their wives and children off on a picnic, he observed that "Gardeners look happy because they have happy work."

CHAPTER FOUR

THE ACCESSORIES OF A GARDEN

"All garden tools have speech if the ear is keyed to hear it."
—*The Garden of a Commuter's Wife.*



THE right way to garden is with an adequate, well-chosen equipment of modern, efficient tools and labor-saving devices. There may be much merit in making the best of an incomplete outfit; in taking up the work in a professional way it may temporarily be necessary to do this. But when one makes a garden from choice, for the sake of the pleasures and profits that we have just reviewed, it is fundamentally desirable that the labor involved be simplified and lightened as much as is consistent with maximum results.

If I were limited to only four hand tools in the garden, I would ask for an iron rake, a hoe, a spading fork and a spade. They would be of the best quality, well made and balanced to fit my height, strength and mode of working; the width of the rake would represent the minimum distance between the rows in my garden; the hoe would be of the regular old-fashioned kind, not too big, and well sharpened; the fork and spade would be stout, but only heavy enough to be conveniently handled.

As the restrictions were lifted I would add a trowel (though the bare hand makes a very satisfactory tool when the ground is not too hard); two more hoes, one of the flat, blade-like scuffle type, the other heart shaped, most useful for making and covering drills; and one of those five-fingered cultivators on a long handle. For the care of the lawn and paths a wooden rake is essential and a measuring stick and garden line would be added to the equipment as soon as possible.

Even the smallest place finds a wheelbarrow of frequent use, and if you care for my advice choose the standard box type with removable sides rather than the cheaper, round-bottomed kind. Likewise, every patch of lawn calls for a mower, a sickle or grass hook, and a pair of sheep shears for keeping the edges neat. If there is much edging to look after, a sharp, crescent-bladed edger is worth having, or better still, one that runs on wheels and is pushed like a lawn mower along the edges of beds, paths, drives, etc.

In every vegetable garden where rows 25 feet long or more are possible, the wheel hoe is a veritable boon. With its adjustable and removable plowshare, teeth, claws and shovel blades, it offers an implement for every sort of cultivating as well as the making of drills and trenches from one to six inches deep, and all by a simple pushing effort. There are both one and two wheel types, each with its own advantages and limitations. I've always found the former satisfactory, but then, I've never tried the latter. Probably the acme of convenience is the model with two wheels, one of which can be removed and the other centred at will.

It is impossible to mention all the inventions that the gardener of to-day can take advantage of; some are admirable and very worth having, others are fussy, erratic and adapted solely to the abilities of the gardening genius or the gardening "bug." The best plan is to keep track of the novelties with the help of some authoritative garden journal and try out only those that are reported as really practical.

Under natural conditions plants grow, mature, sow their seed and complete their existence whether the season is dry or wet, early or late. They adapt themselves to their surroundings, and fight their own battles. The garden represents to a certain extent an artificial environment, in that we give the seeds and seedlings special protection, water the newly set transplants, cultivate to destroy weeds, etc. Our crops, therefore, while improved in quality are weakened so far as resisting untoward conditions is concerned, and it is only fair that, having gotten them used to this fostering care, we should continue to provide it throughout the season.

This justifies the use of irrigation systems, which certain old timers may condemn on the grounds that "we didn't use 'em in my day; th' weather God give us was good enough for *our* gardens."

One sort of spray is especially necessary, now that insect pests and plant diseases have become so thoroughly disseminated over the country; that is, the spray designed to combat these enemies. There are both wet and dry preparations for this purpose; the latter may be dusted on with a pepper box or blown on with a special machine; the former, in solution form, may be sprinkled on with a stiff whisk broom, or distributed through any of the many forms of hand, knapsack, barrel, and wagon spray outfits. One other quite recent device supplies the spray mixtures in the form of soluble cartridges which, placed in a metal container affixed to the hose, are gradually dissolved and distributed by the stream of water.

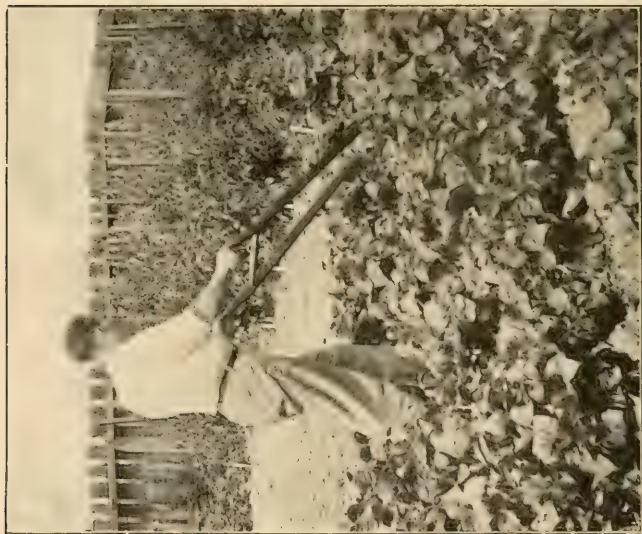
There is no space available here for a discussion of spray outfits, but it is worth while to note the commoner materials that are used in them, and their purposes. Formerly only the simplest preparations could be bought ready for use; the gardener himself had to mix and cook up the various combinations. To-day, though it is often cheaper on a large scale to mix your own materials, it is possible to buy nearly any preparation in a small amount ready for use after water is added as directed on the package.

For fighting *plant diseases* we have (1) flowers of sulphur, for mildew, etc., (2) sulphur compounds such as the lime-sulphur mixture, (3) bordeaux mixture, which is a mixture of copper and lime, (4) ammoniacal copper carbonate, with much the same virtues as (3) but, being colorless, preferable for use on ripening fruits, flowers, etc., and (5) formalin, used to treat certain seeds before planting to destroy disease organisms that are carried by them.

For destroying or repelling *insect pests* we have two kinds of materials, according to the nature of the insect and the steps needed to kill it. All leaf and bud chewing sorts, such as caterpillars, some beetles, etc., are killed by spreading



On the basis of real estate value alone, every garden detail adds to the worth
of the home



The ever-handy wheel hoe—



and the good old-fashioned kind

TWO INVALUABLE GARDEN TOOLS

poison on the foliage in the form of either (1) paris green or (2) lead arsenate. Sap-sucking insects, such as plant lice, weevils, scale insects, etc., are killed by covering them with some oily solution that suffocates them, or with a mildly caustic mixture. Of the first class we have: (1) kerosene emulsion, (2) various miscible oils, and (3) nicotine preparations; in the second class, the lime-sulphur mixture already listed as a disease specific. There are a few exceptions to these insect groups against which special defensive efforts must be made. Additional information about them can be obtained from a number of valuable text books, and through the Service Bureau described on page 48.

Without attempting to discuss the complex science of feeding plants and maintaining soil fertility, it may be well to list the forms of plant food for which the gardener may have use. First, and of greatest general use, is *stable manure* which should have been well rotted but in such a way that rains have not leached it nor the sun burned it. Fresh manure may be mixed with sods, garden refuse, leaves, etc., and left for a year or so to make *compost*; or it may be steeped to provide *liquid manure*, a splendid plant tonic. Several forms of *humus* are on the market, good for dressing lawns, treating light sandy soils, potting plants, etc., but which, since they are only dried, pulverized peat or muck, are rather expensive.

In its larger sense humus means, of course, any sort of decaying organic matter (particularly plant tissue) in the soil which gives it the dark color and spongy, absorptive texture characteristic of all fertile land. An example of almost pure humus is the black, fibrous leaf mold that collects under the surface leaves in hardwood forests; another form is found in peat bogs and is prepared for sale under various trade names as mentioned above. But a crop of any sort dug into the soil, or even the stubble plowed under after a harvest, adds more or less of this valuable material and improves the soil proportionately.

Commercial fertilizers are of both mineral and animal origin and are frequently by-products. They are grouped according to the plant food element in which they are richest, though

several contain two or more in varying amounts. Thus of the nitrogen carriers, which stimulate the growth of foliage, we have *nitrate of soda*, *sulphate of ammonia*, *tankage*, *blood meal*, *cottonseed meal*, etc. Of the phosphorus carriers which increase chiefly the seed growth, there are the *raw*, *ground phosphate rock*, *acid- or super-phosphate*, *ground bone preparations* and *basic slag*. As potash carriers we have *muriate* and *sulphate of potash*, *kainit*, and *wood ashes*, if unleached. Most of these mineral forms are at present prohibitively high priced "because of the war." The best plan is therefore to use whatever sort of general fertilizer can be most easily obtained, and for the rest to rely on winter *cover crops* of clover, rye, or vetch, sown all over the garden in the fall, and plowed or dug under the next spring. Every other year or so, the newly plowed ground should be well covered with a sprinkling of finely ground limestone or air-slaked lime, which is then raked well in. This sweetens the soil and helps practically all crops.

One other way to hasten and stimulate crops is by protecting them, early and late in the season, either indoors or in glass-covered boxes. Houses for the purpose are, as you know, greenhouses, hothouses or conservatories. If the outdoor boxes are supplied with heat (either steam pipes, hot air flues or a layer of fermenting manure) underneath a few inches of soil, they are called *hotbeds*. In them seeds of tender plants, such as tomato, pepper, aster, etc., may be started as early as February or March. If the glass or cloth covered boxes simply surround well-prepared soil, they are *coldframes* and are used for "hardening off" seedlings started in a hotbed, for protecting crops started outdoors in early fall and for getting the best results during the summer with crops which might droop or even die in the hot sun. Since the only real difference between hotbed and coldframe is the supply of bottom heat, it follows that as the layer of manure cools off or becomes "spent" the hotbed becomes a coldframe and can be used as such. Finally, there are individual protectors of glass, or glass and wood, used to stimulate hills of melons, or other tender crops which cannot be transplanted or conveniently grown in a frame.

CHAPTER FIVE

SOME COMMON GARDEN FALLACIES

"A beautiful garden is capable of playing so important a part in the life of a human being that it is worthy of the best that is in him."—Walter P. Wright.



IT IS surprising how many gardens succeed in spite of, rather than because of, the methods that are pursued in their making and care. Synonymously it is remarkable how easily people can pick up erroneous theories and practices, gradually come to accept them, pass them along and eventually depend on them as sound, orthodox and unquestionable. It merely shows the extent and effect of mental inertia and lack of knowledge, and the dangerous possibilities of relying on "garden gossip" for one's information. Some of these mistaken ideas are so well and widely established that it seems worth while to call attention to them and throw on them the light of truth and understanding. In doing this I may tread on the toes of some one's pet notions and convictions, but my defense is that it is in the glorious cause of better gardens. So here goes!

How often we see gardens in which the soil is carefully drawn up into high mounds and ridges around the individual larger plants and the rows of smaller ones. If well done this presents a uniform not unpleasing appearance, suggestive of an orderly mind and much labor; for such gardens are almost invariably weedless. But the labor is misapplied; the consistent hilling of all crops is wrong except under one set of circumstances. When the soil is heavy—that is, clayey and stiff—and poorly drained, the tendency of plants to rot in a wet season can be lessened by planting the seeds

close to the surface and working the soil up around the plants as they grow, thus giving an area of elevated, better drained soil for the root systems to develop in. But if the season turns out a dry one, or if the soil is loose, sandy and well drained, obviously this method keeps the roots up near the surface, away from the permanent moisture supply or "water table," and is very likely to stunt if not indeed kill the plants. The moral is, therefore, that for the beginner moderately deep planting and level cultivation are the best roads to success. The mounding of soil around trees and shrubs is always ridiculous and wrong.

There are two reasons for mulching—which, in garden terminology, means covering ground or plants, or both, with a layer of any sort of loose, protective material. The first is so that the intimate connection between the firm soil and the air may be broken and the evaporation of soil moisture stopped. In accordance with a principle of physics water moves slowly through compact soil in all directions. Moving thus upward, it reaches the surface where the movement of the air hastens its evaporation and increases the upward movement, thus reducing the plant's store below. If, however, we break up the surface crust and keep the top inch of soil loose and dusty, the moisture will not rise through it but will be saved for the plant's use. The same result comes from spreading a layer of lawn clippings or other light fine litter on the soil; this, of course, also obviates the need of cultivating though this is not always realized. This then is the theory of *summer mulching* in general, and shallow cultivation in particular, both of which are invaluable practices in the retention of soil moisture and the resulting stimulation of plant growth.

The second object of mulching is to protect half-hardy plants from changes of temperature in winter. This does *not* mean keeping them from freezing, but rather from the alternate thawing and freezing that occurs throughout the temperate zone, especially at low levels and near large bodies of water. Nearly every one knows that frozen celery, if very gradually thawed out in *cold* water, is entirely fit for im-

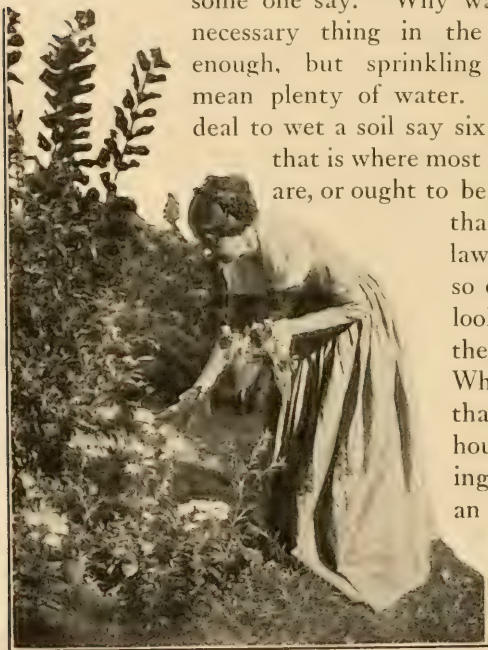


The lawn is the setting for the home and for its garden

mediate use, but that if thawed in the sun, then allowed to freeze, then thawed again, it not only becomes unpalatable but soon rots. It is the same with growing plants and newly planted shrubs, trees, etc. As fall comes on the ground should be permitted to freeze good and hard, which any real perennial will stand. Then, and only then, should the dead leaves, corn stalks, strawy manure or other mulch be applied *to keep the frost in* until the coming of permanent warm weather the next spring. This sort of mulching is often overdone; in many cases the mulch is allowed to pack down, become soaked and freeze solid, when it and the soil beneath tend to thaw and freeze with the changes of temperature just as the bare soil would. The mulch should therefore be only heavy enough to protect without smothering, and it should be loose. The snow is Nature's winter comforter; let the gardener imitate it as closely as he can.

Why not to sprinkle! "The idea of not sprinkling," I hear some one say. "Why water is the most necessary thing in the garden." True enough, but sprinkling doesn't always mean plenty of water. It takes a good deal to wet a soil say six inches deep, yet that is where most of our plant roots are, or ought to be. Suppose, then,

that we sprinkle the lawn for an hour or so every evening; it looks nice and green, the grass grows well. What's wrong with that? Simply this: an hour's daily sprinkling wets perhaps half an inch of soil; the grass roots looking for moisture grow up to this upper half-inch





and form a mat very close to the surface; then, when you neglect to sprinkle on any one day, or when the sun comes out full strength of a July morning, it will bake that top soil, cook your grass roots as if they were in an oven—and where's your lawn? Far better, then, to take the sprinkler off, let the hose run in a full stream for an hour or so then soak the ground further along, and repeat this only once a week or so. A plant with its roots deep in the ground will make better growth under favorable circumstances than one whose "anchorage" and feeding system are restricted to the surface layer of soil which responds most quickly to the atmospheric changes.

The sins of pruning, like many others, result from a failure to find and follow a happy medium. Most people apply the same rule to everything, which means that they prune some plants too much and others not enough. The purposes of pruning are four, namely, (1) to give a definite shape and stature to a tree or shrub, as in the case of young fruit trees, hedges, etc. This is the *guiding method*. (2) To correct a poor shape judged either by utilitarian or æsthetic standards, as in the case of old trees, neglected shrubs, etc. This is the *corrective method*. (3) To enable a plant



It isn't the amount of space that the garden covers that counts, but rather the way that space is used

to do its best in a natural, unrestrained way. This cutting out of dead wood, trimming back of ungainly shoots and very light thinning is the *natural method* and the only one that can be applied promiscuously without doing harm. (4) To stimulate a dense growth of foliage, or the production of fruit or flowers, as in the case of hedges, rose bushes, some fruits, vines such as wistaria, etc. This might be called the *radical method* and while it is highly valuable and effective, it calls for knowledge, judgment and skill. The commonest mistakes in the average garden consist of trimming hedges such as privet, etc., too lightly and not early enough to make them thick; shearing individual shrubs into stiff, symmetrical, unnatural shapes; failure to cut roses with long stems and to severely cut back the "H. P's" (hybrid perpetuals) immediately after they bloom; failure to take out from blackberries, raspberries, etc., the canes that have once borne and are therefore useless; neglect of young fruit and ornamental trees until they have definitely assumed undesirable forms; and, in general, the failure to study each plant and apply to it the particular treatment for which it calls. I cannot discuss the details of these treatments here, but perhaps I have at least suggested the importance of an adequate study of the whole field.

Whenever I see any one who has a garden raking up leaves, dead vines, and other plant refuse and *burning it*, I know that it is either the result of gross ignorance, or a sign of the gardener's willingness to throw away money for the sake of saving half an hour's labor. For every bit of plant tissue contains plant food, and, if saved, mixed, and piled up with a little manure and loam for six months or so, it will provide, at absolutely *no cost*, the best dressing that can be obtained anywhere. Besides, next to snow, fallen leaves are the best winter mulch in the world and no gardener is either so rich or so clever that he can afford to throw them away. Again, don't they make splendid litter for the chicken house and bedding for the stable, where they absorb still more plant food and become even more valuable? Of course.

Indeed there is only one thing worse than burning leaves,

and that is burning over lawns and fields "to make the grass grow." That is not only the sign of laziness, a desire to get away from mowing and raking, but also one of the best ways to destroy whatever stand of grass exists. For while the addition of an infinitesimal bit of ash cannot do harm and may do good, nevertheless, the soil needs the decaying grass, leaves and other bits of litter far more than the ash; and the grass roots are almost certain to be killed by the sweep of flame across the surface.

Laziness plays no part in a good gardener's make-up, but economy of time and effort, and the ability to follow the line of least resistance is another thing. In a sense it is the measure of his success. By this I mean that the real gardener adapts himself to his environment, takes his cue from Nature and grows the plants that are suited to his locality, and so develops his garden that he can get maximum results with minimum labor and expense. All too often we see people vainly struggling with foreign species, untried, undeveloped varieties, complicated, exotic plants, involved, elaborate methods, in the hope of obtaining something "unique, striking, out of the ordinary." Garden beauty and garden satisfaction lie not in that direction. They grow rather with the development of simple plans, along modest, direct lines; in the use of hardy, native, well-chosen materials; in the careful combination of orthodox, time-proven methods with the inspiration of personality. Nature is kindly, generous, just; She repends to sympathetic encouragement and judicious stimulation; She is easily led. *But*, She resents being opposed, coerced, underestimated, or disregarded. And in the end She is always victorious. The wise gardener, who is also the successful one, works hand in hand *with* Her and his reward is bountiful.

CHAPTER SIX

PRACTICAL DETAILS OF GARDEN MAKING

"Whatever is worth growing at all, is worth growing well."

—George H. Ellwanger.



HAVING now sketched some of the reasons for having a garden and some of the returns that may be expected from it, there remains but to outline the methods by which one can be made. Since a full knowledge of this subject cannot be obtained from a single season's experience or any one volume, this chapter must of necessity be a skeleton of directions and suggestions. But then, a skeleton is a very fundamental and essential part of any structure.

A garden, like a house or a war or a political campaign, should be built around a preconceived, carefully worked out plan, the preparation of which offers a most delightful winter form of garden activity. In making it

1. Draw a map of the grounds to be planted, on a good, large scale, blocking in permanent objects such as buildings, drives, rocks, pergolas, etc. Note compass directions so as to locate the shadiest spots.

2. In distributing permanent features try to work in the principles discussed in Chapter II. If there is room, plan for a vegetable garden in two parts, each to be cultivated in alternate years and at other times to be seeded down to a cover crop or used as a chicken yard.

3. A few large fruit trees can be planted around the house for shade, but for convenience in spraying, harvesting, etc., it is better to grow only dwarfs, in straight rows.

4. Vines and shrubs soften the outline of a dwelling, but if too thickly planted tend to keep out much-desired

sunlight and air. In planting permanent material keep in mind its size and appearance five or ten years hence.

5. Pleasing effects with flowers require just the right combination of colors, heights and seasons. White and yellow go well with almost any shades; reds, lavenders and blues unless very carefully blended are better apart.

6. Keep tall plants in the background and for late season effects. Don't rely on your perennial border and mass plantings for cut flowers. Save an out of the way corner and grow flowers in rows, like vegetables, for cutting.

7. Don't try for more than one style of garden in the small place where the simpler the effect, the greater the charm and the easier the task of keeping it up.

8. Buy only first-class, reputable materials even if it means less of them. Rely mainly on standard, time-tried varieties. As you acquire skill and a knowledge of your garden's possibilities experiment cautiously with novelties.

Success in the Vegetable Garden. 1. For the best light run the rows north and south; for the easiest cultivation run them the long way of the garden; to prevent soil washing, run them across, not up and down a slope. If these rules conflict, compromise as best you can.

2. Keep the taller sorts at the north end, so that they will shade the others as little as possible. Keep together the crops that grow all season, i. e., parsnips, salsify, tomatoes, cabbage, parsley, etc. Keep together as far as possible the crops that call for similar distances between the rows, making the garden look better and its cultivation easier.

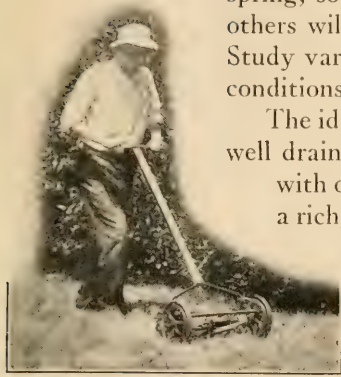
3. Estimate the date when each crop will mature and if a month or more of growing weather remains, plan to sow another crop in its place at once.

4. If you cannot allow for two gardens, plan not to grow the same or related crops in the same place two successive seasons. This lessens the danger of establishing plant diseases in the soil.

5. Varieties differ considerably in rate of growth, and soil and seasonal preferences. Certain lettuces will not "head up" in midsummer; certain radishes do best in early

spring; some carrots demand a deep soil; others will succeed in a shallower loam. Study varietal descriptions and meet the conditions of *your* garden and your tastes.

The ideal soil is a typical sandy loam, well drained, easily worked, well supplied with organic matter or *humus*, and of a rich, warm brown color. Too often the suburban grounds are mainly sand dug out of the house foundation, plasterer's refuse, and ashes or cinders hauled in to fill up. In the



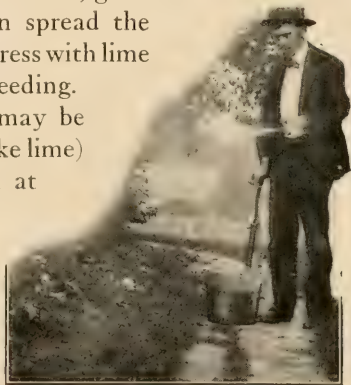
worst of such cases, the only feasible plan is to obtain enough good soil to cover the rubbish a foot or more. But in many instances, careful management, generous systematic fertilizing and the judicious fitting of certain crops to certain conditions will give surprisingly satisfactory results.

1. The best fertilizer is stable manure; if it is well rotted you cannot use too much; a good average application is a layer four inches deep.

2. For best results spread this in the fall, and plow or dig it under at once. Then sprinkle on raw ground limestone or agricultural (air-slaked) lime, say 100 pounds to 250 square feet, and rake it in lightly. Where the ground slopes and might be washed by winter rains, grow a cover crop over winter; then spread the manure and plow in the spring, dress with lime and harrow or rake ready for seeding.

3. Commercial fertilizers may be raked in previous to planting (like lime) or sprinkled in the drill or hill at planting time, *except* nitrate of soda which is a "tonic" and should be used only around growing crops.

4. Very sandy soils need lots of manure, commercial





One of the biggest factors in garden care is a constant, interested enthusiasm

humus, or any sort of rotted vegetable matter well worked in. Lime sometimes helps them. Hard, stiff, black clays may be lightened with sand or sifted coal ashes, but humus helps them just as it does sand. They usually need lime, too. Wood ashes are good for any soil.

5. The finer and smoother a soil is raked before seeding the better. But don't rake more than you can plant the same day, or, if it rains, you may have to spade it over again.

6. In spading stiff heavy soils use a fork, and leave the surface rough for the weather to work on. Dig light loams and sands with a spade. *Don't* dig or cultivate any soil except very sandy sorts when it is wet. It will puddle, cake, bake and become almost useless for weeks if you do.

Seed Sowing and Transplanting. 1. Follow the directions on the packages in general, but in *cool* weather, and in light sandy soils, cover seeds a little deeper than in warm weather and heavy land.

2. *Always* firm the soil on top of newly sown seed, and around newly set plants. This brings the moisture close to them and hastens their sprouting and growth.

3. Before transplanting soak the soil where the seedlings are and where they are going (unless the latter is of a clay type). Lift each plant with as much soil as possible and do not expose it to the sun or wind any longer than absolutely necessary; set it a trifle deeper than it stood before; firm the soil around it; clip off the outer leaves to check evaporation.

4. Never let a transplanted plant want for water, at least until it is thoroughly established. Lettuce is assisted by covering each newly set plant with an old berry box or any other protection from the sun for a day or two.

5. In transplanting tomatoes, peppers and cabbages, wrap around each stem a collar of paper to extend at least an inch above and below the soil, to ward off cutworms.

6. To ensure a succession of such plants as peas, beans, lettuce, radishes, beets, kohlrabi, etc., sow a fresh row just as the previous planting shows above the surface.

7. Plant small, quick growers like lettuce, radishes, etc., between the rows of larger, slower maturing sorts. In the

case of early sorts such as spinach, start tomatoes, corn, etc., between the rows to occupy the ground after the former is harvested.

Care and Cultivation 1. The best plants grow quickly; don't let anything check them.

2. Success against weeds means keeping them out, not taking them out after they get in.

3. Cultivate after *every* rain as soon as the ground is dry enough to work. This is (1) to break the surface crust and conserve moisture and (2) to kill the weeds while they are small.

4. The best time to cultivate is early in the morning so that the weeds thrown up in the process will be killed by the noonday sun and before a night's dew can revive them.

5. *But never* cultivate or handle any kind of *beans* when the vines are *wet*. This is the easiest way to spread a serious disease and ruin the crop.

6. Provide brush or wire for peas and poles for running beans before they really need them. A vine once tangled and on the ground is never as good as one always supported.

7. The most common disease of most vegetables is some form of mildew. To control it spray with bordeaux mixture or sprinkle with sulphur.

8. The commonest vegetable insect pests are plant lice and various kinds of chewing insects such as caterpillars and potato beetles. For the former use kerosene emulsion or a tobacco spray called "Black Leaf 40." For the latter, use arsenate of lead except on plants that are soon to be harvested in which case hellebore is safer.

9. To blanch (whiten) celery, pack soil up around it, or surround each plant with a cover made for the purpose. Cauliflower, endive, etc., are blanched by tying the outer leaves up around the head. But don't do anything of this kind unless the plants are dry, or they will quickly rot.

10. Little or nothing is gained by "pinching back" the stems of melon and cucumber vines, picking off the lower leaves of brussels sprouts, etc. But if the foliage of tomato plants becomes too dense, judicious thinning will make the fruit color up better and may save it from rotting.

11. A little attention every day is far better than several hours once a week. Unless you are ready to really care for it, don't start a garden at all, for a neglected garden is a disappointment and a discredit to its maker.

Harvesting Hints. 1. All vegetables are best when they are young and tender. Therefore plant a little often, and use each crop as soon as it is ready.

2. In harvesting beets don't throw away the tops but boil them for "greens" with any beets that are too small to use by themselves.

3. In harvesting cabbage, cut the head instead of pulling it up by the roots. A number of small, tender, delicious heads will develop on the stump and provide a second crop in a few days. If cabbages mature too quickly grasp the heads and give them a brisk twist so as to break some of the roots and check their growth.

4. As fast as a crop matures clean up the row and throw the vines, litter, etc., on the compost pile.

5. Leave parsnips and salsify in the ground until after one good freeze. Carrots, beets, and turnips must not be frozen.

6. All root crops and cabbage can be kept for winter use in a damp, cool cellar or better still in a pit outdoors. Potatoes, like apples, keep best in a dark, not too dry, cellar kept barely above freezing; onions want a dry, cool shed or attic; and winter squash needs dry warmth.

7. Don't let any crop go to waste. If it cannot be conveniently kept as above, can it in tin or glass in accordance with the simple modern methods to be learned from a number of free bulletins of State and Federal Agricultural Departments. The products of a garden, like its opportunities and joys, should last all the year round.

CARROT - APRIL	ALL SEASON	1'		
CARROT - APRIL	SPINACH - AUGUST	BET - APRIL	ENDIVE - JULY	1'
BET - APRIL	ALL SEASON	1'		
ONION - APRIL	"	1'		
ONION - APRIL	"	1'		
PARSNIP - APRIL	"	1'		
RADISHES - PLANT EVERY ONE WEEKS WHILE THERE IS SPACE				1'
CABBAGE - SOW SEED - MAY	SPINACH - AUGUST	CABBAGE TILL JULY	THEN ENDIVE	1'
CHARD - APRIL	(ALL SEASON)	LEEK - APRIL	(ALL SEASON)	1'
BET - APRIL	TILL CHARD NEEDS SPACE	CARROT - APRIL	TILL LEEK NEEDS SPACE	1'
LETTUCE - APRIL	CELERY PLANTS - JULY			1'
TURNIP - MAY	CELERY PLANTS - JULY			1'
KOHLEBI - APRIL				
SPINACH - MARCH	TOMATO PLANTS - JUNE	OR SEED - MAY		
TURNIP - AS NEEDED				
SPINACH - MARCH	PEPPER - PLANTS OR SEEDS - JULY			
RADISH OR LETTUCE AS NEEDED				
20' X				16'
				SEEDS FOR STARTING CABBAGE CELERY LETTUCE PEPPERS TOMATO

A PAKRO PLAN FOR A 20 x 40 FOOT VEGETABLE GARDEN

Including all the vegetables described on the ten pages following, and directions as to their planting arrangement, etc. Modify this to meet your own needs and tastes but stick to the same general spacing and seasonal combinations.

PUBLISHER'S ANNOUNCEMENT

ALL YEAR HELP FOR HOME GARDEN MAKERS

GARDENING is not only a complex science, but also a science full of local, personal problems and difficulties. It cannot, as Mr. Seymour has said, be learned in a single season or from a single book. Therefore, although he has in the foregoing pages outlined the most important details of garden making and garden care, and told you why you should and how you can have a garden, we have made arrangements with him to supplement this volume with further advice all through the year. In other words, he is going to help readers of this book in solving their particular individual garden problems, by means of personal answers to their questions.

If there is anything you want to know about gardening, crops, cultivation, insects, diseases, lawns, fruits, vegetables, etc., state your problem as briefly as possible, enclose a two cent stamp for reply and mail to

The Pakro Seedtape Service,
71 West 23rd Street,
New York City.

It will then be forwarded to Mr. Seymour who will give you the information desired or tell you where you can conveniently find it. This is a free service, designed to help beginners over the obstacles that might prevent them from knowing the real joys and rewards of gardening.

PAKRO SEEDTAPE VEGETABLES

BEET

Crimson Globe

A wonderfully smooth-skinned, perfectly shaped beet of medium size with deep crimson, fine grained flesh. The leaves grow compactly and are therefore easily removed. A very popular, second early variety that remains tender for a long time.



BEET

Early Egyptian

One of the very best extra early varieties. Although large it attains its size very quickly. The flesh is rather light in color but attractive and tender. Pakro beet seed is selected with the utmost care and brings real results.



CELERY

White Plume

The most attractive of all celerys, unsurpassed for fall and winter use. It grows so easily from Pakro Seedtape, requires so little earthing up to blanch the stalks, and is of such excellent flavor and crisp tenderness, that it should be included in every garden.



PAKRO SEEDTAPE VEGETABLES



CABBAGE
All Seasons

An unusually large drum head variety of excellent quality; equally good for early spring, summer or fall use. Without doubt the best all-round cabbage grown. Grow it once from Seedtape and you will never leave it out of your garden plan.

CABBAGE
Early Jersey Wakefield

The very best first early cabbage grown. Conical (pointed) in shape, attractive in appearance, delicate in flavor and the most palatable cabbage of all. The crop grown from the Pakro strain of seed may be depended upon for earliness, size and quality.



CABBAGE
Premium Flat Dutch

The finest strain of the Flat Dutch sort, producing remarkably large heads of fine quality. Being hardy, sure heading, easy to grow and excellent to the taste, it is a most satisfactory late variety for every garden.

PAKRO SEEDTAPE VEGETABLES

CARROT

Danvers

A smooth, rich orange-red, large growing variety with tops of medium size, roots that taper slightly to a blunt point, and flesh of fine close texture with but little core. Does well in all kinds of soil, is easier to harvest than the longer sorts, and is excellent for winter storing.



CARROT

Oxheart or Guerande

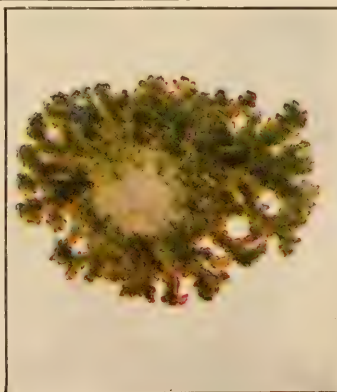
Asplendid carrot for shallow soils on account of its short, stocky form; one of the best for spring and early summer use. Of excellent quality and especially suited to home gardens, since although it may be used while very small for soups, etc., it remains tender for a long time after maturing.



ENDIVE

Green Curled

The standard variety for general use. Easily blanched by tying up the outside leaves or covering the plants with boards. We offer this variety only, because it is the best, the most easily grown and blanched, and of pleasant stimulating flavor.



PAKRO SEEDTAPE VEGETABLES



KOHLRABI

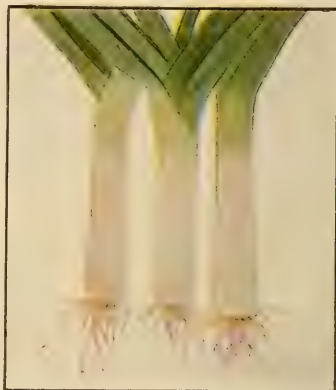
Early White Vienna

This variety having a short top and forming the ball or tuber very quickly is well adapted to both home and market garden use. It may be pared and eaten raw; or sliced, boiled and served with a cream sauce.

LEEK

Large Flag

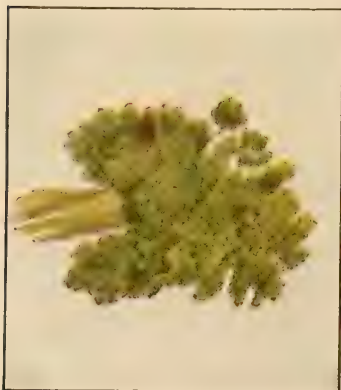
The best variety for general use, being mild and very popular. Young plants make excellent "scallions." Pakro Seedtape eliminates the usual difficulty of growing such vegetables as the leek, which must not be crowded.



PARSLEY

Double Curled

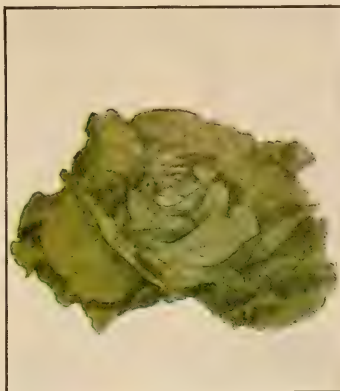
The most popular of several varieties offered by seedsmen because of its much curled foliage, dwarf habit and tenderness. Parsley being the standard plant for garnishing and flavoring purposes, no gardener can afford to be without a row or two of it.



PAKRO SEEDTAPE VEGETABLES

LETTUCE
Big Boston

Without doubt the most popular lettuce grown. Pakro Seedtape gives the utmost satisfaction, producing large, solid, creamy white heads, delightfully crisp and tender. This variety should be grown in early spring or late fall as it does not do well during hot, summer weather.



LETTUCE
Black Seeded Simpson

One of the very best curled or cutting varieties, standing the summer heat well and being practically everbearing. This and similar sorts do not head but produce bunches of loose, highly palatable leaves. In Pakro Seedtape you will find a carefully selected strain.



LETTUCE
Trianon Cos

The best variety of the distinct Cos or Romaine type which is much liked because of its crisp, tender quality and delicate flavor. It is easy to grow and may be blanched by tying up the outer leaves with raffia or soft string several days before the plant is wanted for the table.



PAKRO SEEDTAPE VEGETABLES



ONION
White Portugal

The leading white sort, of fine shape and mild flavor. It matures early, is excellent for pickling and, without doubt, is the best onion for general use. The seed is of the characteristic Pakro quality.

ONION
Yellow Globe Danvers

The best main crop variety and probably one of the oldest. Known as the "onion that never changes." An unusually good keeper of fine shape and uniformity and a general favorite everywhere. Like the other Pakro varieties this seed is from a carefully selected strain.



PARSNIP
Hollow Crown



Especially selected as the best and most highly esteemed variety for the private garden. The long, smooth, tender, sugary, white roots are easily grown and easily dug. They should be planted early and given thorough cultivation all summer.

PAKRO SEEDTAPE VEGETABLES

PEPPER

Bell or Bull Nose

An early variety producing large, bright red, thick fleshed mildly flavored fruits. These are excellent while green for stuffing, and when ripe are unequalled for pickling and mild enough to be eaten raw. Surely this is the one pepper for all purposes.



SPINACH

Long Standing

A variety making large plants with thick, fleshy, dark green leaves that remain fit for use for a long time before seed stalks appear. Primarily a vegetable for early spring and late summer culture.



SWISS CHARD

One of the most delicious and convenient of "greens." Grows all summer giving frequent cuttings of succulent leaves. These may be boiled like spinach, or the leaf stalks may be prepared like asparagus, providing an excellent substitute. Any one can grow it from Pakro Seedtape—and everyone should.



PAKRO SEEDTAPE VEGETABLES



RADISH
French Breakfast

Pakro Seedtape radishes have given such satisfaction that we found it necessary to increase our offering of varieties, and selected this sort as the most popular of the oval sorts. It is bright scarlet with a white tip, mild, very tender and a general family favorite.

RADISH
Icicle

A long, almost transparent white variety, crisp and brittle. It remains in fine condition for a long time and may be grown throughout the summer, thus enabling one to have fresh radishes all season.



RADISH
Long Scarlet



The most popular long, red radish grown. The flesh is pure white, very crisp and exceedingly mild. Can be used equally well when very young and when fully mature. No first class garden is without a generous share of radishes.

PAKRO SEEDTAPE VEGETABLES

RADISH

Scarlet Turnip White Tip

Positively the most popular radish of all. Round, of medium size, in color a brilliant scarlet tipped with white, the flesh solid, pure white, crisp and mild—on the whole this variety is most attractive in appearance and unsurpassed for table use.



TURNIP

Purple Top Strap Leaf

The most popular quick growing variety. The flesh is pure white, fine grained, mild and crisp. The roots are quite flat, of convenient size, purplish red on top shading to white on the lower side. Excellent results are reported by all growers of Pakro turnips.



TURNIP

Purple Top White Globe

An early, heavy yielding variety and a good keeper. The roots are large, globe shaped, white, shading to a reddish purple top, with fine grained, crisp white flesh. An excellent sort to grow for winter use. Like that of all Pakro vegetables, the seed is of the very highest quality.



PAKRO SEEDTAPE VEGETABLES



TOMATO
Beauty

A well named variety, the fruit being of a glossy, crimson color with slight purplish tinge, of good size, of solid, meaty texture, and smooth. The plant is a strong grower and a very prolific bearer. Who could ask for more?

TOMATO
Ponderosa

A tall, strongly growing variety producing fruits that often weigh two pounds or more apiece. These are purplish pink in color and, being unusually solid and containing very few seeds, are excellent for slicing. They continue to ripen practically until frost.



TOMATO
Stone

Though not as large as the *Ponderosa*, the fruit of this variety is of good size and a bright scarlet color. They ripen evenly all the way to the stem without cracking, and contain firm, solid flesh of the finest quality. Good for both table use and canning.



PAKRO SEEDTAPE FLOWERS

ALYSSUM, SWEET

The ever popular Sweet Alyssum, known by almost everyone needs little description. For beds, borders, baskets, etc., the dwarf plants with their all summer profusion of delicate, sweet scented white flowers are unexcelled.



ASTER

Giant Mixed

One of the largest varieties of Aster grown. The flowers are as large and as effective as any hardy chrysanthemum, keeping, when cut, in good condition for a long time. The seed of this and the following variety was selected with special care for Pakro Seedtape.

ASTER

Queen of the Market, Mixed

An extremely early variety especially satisfactory as a source of cut flowers, the blooms being of medium size, double and long stemmed. The strongest plants come when each is given plenty of room; this is one reason for the success of Pakro Asters.



PAKRO SEEDTAPE FLOWERS



BALSAM

Double Mixed

One of the most popular of the old-fashioned garden flowers, better known, perhaps, as Lady Slipper. Grows about two feet tall producing masses of brilliantly colored, very double flowers. Easily grown and a very satisfactory showy annual.

CANDYTUFT

Mixed

A dwarf flowering annual forming plants about a foot high. A very free bloomer usually considered indispensable for cutting purposes. For continuous bloom make successive plantings of Pakro Seedtape.



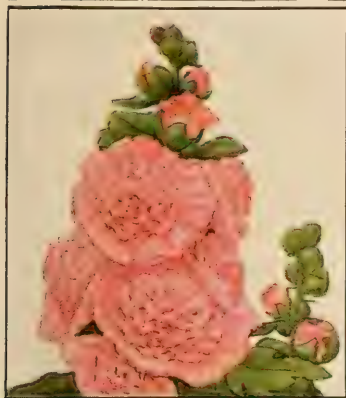
CORN FLOWER *or* BACHELOR'S
BUTTON

Another favorite from the old-fashioned garden. Blooms profusely and continuously provided the flowers are gathered frequently. In combination with Pakro California Poppies, it makes a very beautiful and brilliant display both in the garden and in the house.

PAKRO SEEDTAPE FLOWERS

FORGET-ME-NOT

A perennial that blooms the first year if planted early. Especially effective if grown as a border. Provides a touch of bright and pleasing color in the spring when it is most welcome.



HOLLYHOCK

Chartier's Double Mixed

One of our forefathers' favorites that is still highly valued for planting among shrubbery, against walls and fences, and as a background for other smaller flowers. The strain selected for Pakro Seedtape is of the best, producing large, brilliant, very double flowers in great profusion.

MIGNONETTE

Grandiflora

No garden is really complete without a bed of this popular, fragrant, free blooming annual. Successive plantings give a continuous supply of bloom from early spring until frost.



PAKRO SEEDTAPE FLOWERS



MORNING GLORY

Selected Imperial Mixed

This is the imported giant Japanese variety that makes as much as thirty feet of growth in a season. The brilliant flowers are well known, but in this variety the foliage too is wonderfully effective before the blossoms appear. Use it for covering trellises, fences and walls, screening porches, etc.

PANSIES

Good Mixed

In Pakro Seedtape we do not offer the ordinary mixed Pansies, but the very best strain that can be secured, one that produces large varicolored flowers beautifully marked and mottled, in great profusion.



PHLOX DRUMMONDII

Grandiflora, Mixed

There is nothing better than Phlox for bedding, although it is extensively used also for borders, boxes, and in many other positions. It is one of the most brilliant annuals grown, bearing a mass of beautifully colored flowers that remain in bloom until frost. It will grow in almost any soil if given a sunny position.



PAKRO SEEDTAPE FLOWERS

PINKS

Double, Mixed

One of the most popular flowers in cultivation producing many blossoms of varied, brilliant colors a short time after planting and continuously up to cold weather. The double varieties we offer resemble small carnations and are fine for cutting.



POPPY

California

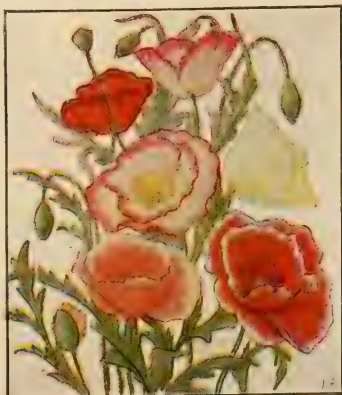
A beautiful and very popular annual of very easy culture if Pakro Seedtape is used. The brilliant yellow flowers bloom from June until frost and are excellent for cutting. Try them in combination with Bachelor's Buttons.



POPPY

Shirley, Mixed

One of the most attractive varieties grown, producing wonderful flowers, ranging from the purest white through pink, rose and carmine, to the deepest crimson. This sort blooms continuously for a long time.



46

PAKRO SEEDTAPE FLOWERS



SALVIA SPLENDENS
Grandiflora

The Scarlet Sage, as this plant is also known, has long been a favorite, especially for use with masses of foliage plants and against building foundations. During the summer and fall it produces striking scarlet flowers in great profusion on long stems or spikes.

STOCKS
Ten Weeks, Mixed

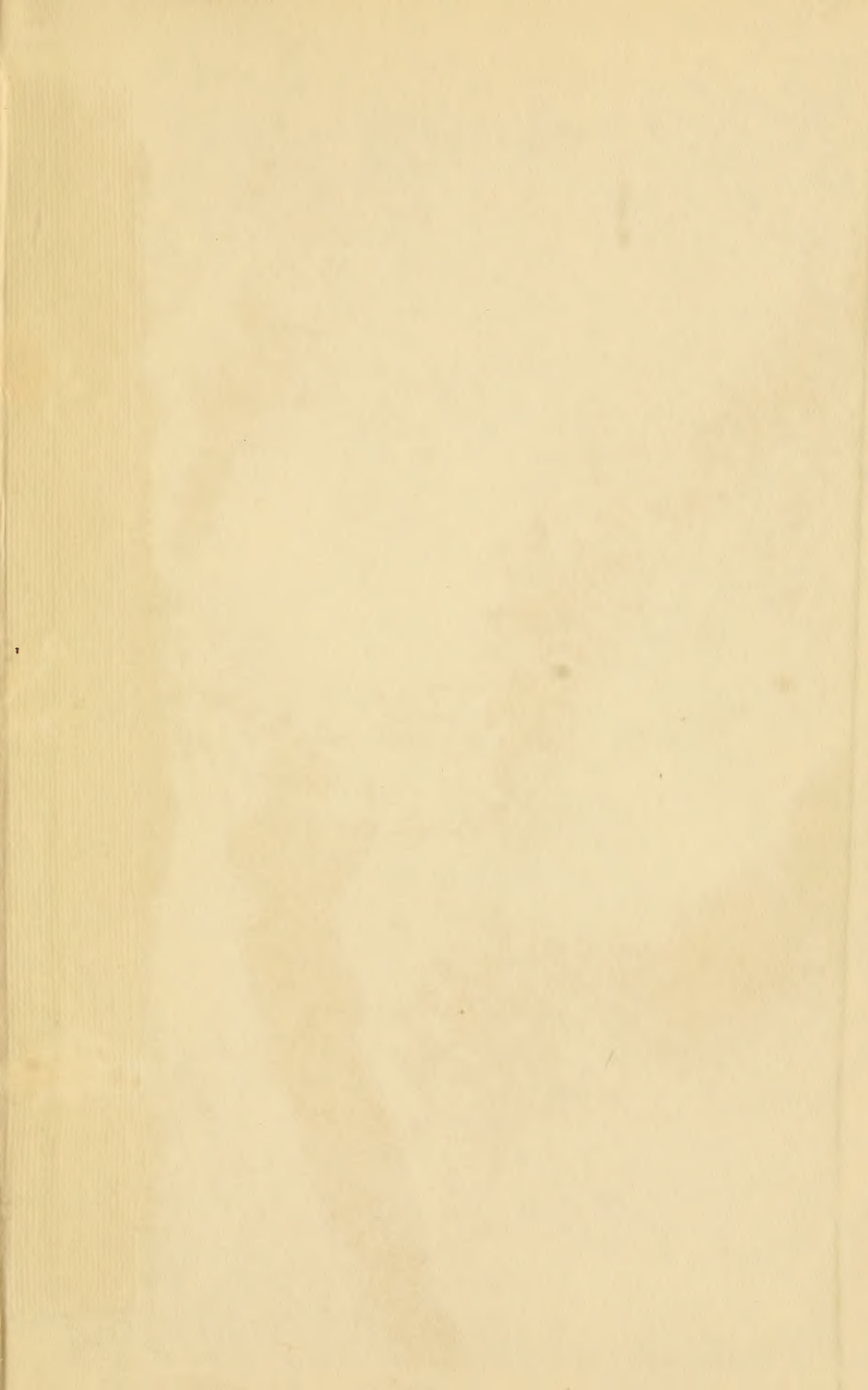
The earliest flowering variety, therefore the favorite for bedding. It produces fragrant flowers of great beauty on tall spikes much like the Hollyhock. Plants grown from Pakro Seedtape are sure to give satisfaction.



SWEET PEAS
California Giant, Mixed



Universally the most popular—and deservedly so—flower of all. This strain insures quick growth, free flowering, brilliant coloring, long, sturdy stems and a general effect that cannot be surpassed. Plant early, feed and water generously and let Pakro Seedtape prove what it can do.



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